

Amendments to the Claims

1. (Original) An electrode of a solid oxide fuel cell wherein:
the electrode comprises a skeleton constituted of a porous sintered compact having a three dimensional network structure, the porous sintered compact being made of an oxide ion conducting material and/or a mixed oxide ion conducting material;
grains made of an electron conducting material and/or a mixed oxide ion conducting material are adhered onto the surface of said skeleton; and
said grains are baked inside the voids of said porous sintered compact under the conditions such that the grains are filled inside the voids.

2. (Original) The electrode of a solid oxide fuel cell according to claim 1, wherein said porous sintered compact is made of a material which has a composition represented by the following formula:



where

Ln = one or more of La, Ce, Pr, Nd and Sm;

A = one or more of Sr, Ca and Ba;

B_1 = one or more of Mg, Al and In;

B_2 = one or more of Co, Fe, Ni and Cu;

$x = 0.05$ to 0.3 ;

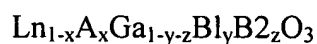
$y = 0.025$ to 0.29 ;

$z = 0.01$ to 0.15 ; and

$y + z \leq 0.3$.

3. (Original) The electrode of a solid oxide fuel cell according to claim 1, wherein said porous sintered compact is made of a yttria stabilized zirconia.

4. (Original) The electrode of a solid oxide fuel cell according to claim 1, wherein said porous sintered compact is made of a material having a composition represented by the following formula, and the electrode is an air electrode:



where

Ln = one or more of La, Ce, Pr, Nd and Sm;

A = one or more of Sr, Ca and Ba;

B₁ = one or more of Mg, Al and In;

B₂ = one or more of Co, Fe, Ni and Cu;

x = 0.05 to 0.3;

y = 0 to 0.29;

0.15 < z ≤ 0.3; and

y + z ≤ 0.3.

5. (Original) The electrode of a solid oxide fuel cell according to claim 1, wherein said porous sintered compact is made of a material having a composition represented by the following formula, and the electrode is an air electrode:



where

A' = one or more lanthanoid metals each having the 8 coordination ionic radius of the trivalent ion ranging from 1.05 to 1.15 Å;

B' = one or more of Co, Fe, Ni and Cu;

x' = 0.05 to 0.3; and

y' = 0.05 to 0.3.

6. (Currently amended) The electrode of a solid oxide fuel cell according to ~~any of claims 1 to 3~~ claim 1, wherein said grains comprise at least one of Ni, Co, Ce_{1-m}C_mO₂ (C is one or more of Sm, Gd, Y and Ca; m = 0 to 0.4), and the electrode is a fuel electrode.

7. (Currently amended) The electrode of a solid oxide fuel cell according to ~~any of claims 1 to 5~~ claim 1, wherein said grains are made of at least one selected from a group of the materials based on LaMnO_3 , LaCoO_3 , SmCoO_3 and a PrCoO_3 , and the electrode is an air electrode.

8. (Currently amended) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to ~~any of claims 1 to 7~~ claim 1 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

9. (Currently amended) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to ~~any of claims 1 to 3~~ claim 1 is integrally formed on both surfaces of an oxide ion conducting, dense solid electrolyte layer.

10. (Currently amended) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to ~~any of claims 1 to 5 or claim 7~~ claim 1 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer; and the electrode according to ~~any of claims 1 to 3 or claim 6~~ claim 1 is integrally formed on the other surface of the oxide ion conducting, dense solid electrolyte layer.

11. (Currently amended) The electrode/electrolyte laminate for a solid oxide fuel cell according to ~~any of claims 8 to 10~~ claim 8, wherein the skeleton of the electrode and the solid electrolyte layer are made of the same material or the same type of material.

12. (Currently amended) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to ~~any of claims 1 to 7~~ claim 1.

13. (Currently amended) A solid oxide fuel cell, wherein the fuel cell comprises the electrode/electrolyte laminate according to ~~any of claims 8 to 11~~ claim 8.

14. (New) The electrode of a solid oxide fuel cell according to claim 2, wherein said grains comprise at least one of Ni, Co, $Ce_{1-m}C_mO_2$ (C is one or more of Sm, Gd, Y and Ca; $m = 0$ to 0.4), and the electrode is a fuel electrode.

15. (New) The electrode of a solid oxide fuel cell according to claim 3, wherein said grains comprise at least one of Ni, Co, $Ce_{1-m}C_mO_2$ (C is one or more of Sm, Gd, Y and Ca; $m = 0$ to 0.4), and the electrode is a fuel electrode.

16. (New) The electrode of a solid oxide fuel cell according to claim 2, wherein said grains are made of at least one selected from a group of the materials based on $LaMnO_3$, $LaCoO_3$, $SmCoO_3$ and a $PrCoO_3$, and the electrode is an air electrode.

17. (New) The electrode of a solid oxide fuel cell according to claim 3, wherein said grains are made of at least one selected from a group of the materials based on $LaMnO_3$, $LaCoO_3$, $SmCoO_3$ and a $PrCoO_3$, and the electrode is an air electrode.

18. (New) The electrode of a solid oxide fuel cell according to claim 4, wherein said grains are made of at least one selected from a group of the materials based on $LaMnO_3$, $LaCoO_3$, $SmCoO_3$ and a $PrCoO_3$, and the electrode is an air electrode.

19. (New) The electrode of a solid oxide fuel cell according to claim 5, wherein said grains are made of at least one selected from a group of the materials based on $LaMnO_3$, $LaCoO_3$, $SmCoO_3$ and a $PrCoO_3$, and the electrode is an air electrode.

20. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 2 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

21. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 3 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

22. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 4 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

23. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 5 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

24. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 6 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

25. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 7 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer.

26. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 2 is integrally formed on both surfaces of an oxide ion conducting, dense solid electrolyte layer.

27. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 3 is integrally formed on both surfaces of an oxide ion conducting, dense solid electrolyte layer.

28. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 2 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer; and the electrode according to claim 2 is integrally formed on the other surface of the oxide ion conducting, dense solid electrolyte layer.

29. (New) An electrode/electrolyte laminate for a solid oxide fuel cell, wherein the electrode according to claim 3 is integrally formed on one surface of an oxide ion conducting, dense solid electrolyte layer; and the electrode according to claim 3 is integrally formed on the other surface of the oxide ion conducting, dense solid electrolyte layer.

30. (New) The electrode/electrolyte laminate for a solid oxide fuel cell according to claim 9, wherein the skeleton of the electrode and the solid electrolyte layer are made of the same material or the same type of material.

31. (New) The electrode/electrolyte laminate for a solid oxide fuel cell according to claim 10, wherein the skeleton of the electrode and the solid electrolyte layer are made of the same material or the same type of material.

32. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 2.

33. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 3.

34. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 4.

35. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 5.

36. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 6.

37. (New) A solid oxide fuel cell, wherein the fuel cell comprises an air electrode and/or a fuel electrode each consisting of the electrode according to claim 7.

38. (New) A solid oxide fuel cell, wherein the fuel cell comprises the electrode/electrolyte laminate according to claim 9.

39. (New) A solid oxide fuel cell, wherein the fuel cell comprises the electrode/electrolyte laminate according to claim 10.

40. (New) A solid oxide fuel cell, wherein the fuel cell comprises the electrode/electrolyte laminate according to claim 11.